



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

December 12, 2007

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**VIA CERTIFIED MAIL** 7002 3150 0003 3220 4239

The Honorable Kevin D. Burke, Mayor  
City of Terre Haute  
17 Harding Avenue  
301 City Hall  
Terre Haute, Indiana 47807

Dear Mayor Burke:

Rc: Modified Hybrid Biosolids Land Application  
Permit No. IN LA 000260  
Terre Haute Municipal STP  
Vigo County

Your application and supporting documents have been reviewed and processed in accordance with Indiana law and the Indiana Land Application Regulations found at 327 IAC 6.1. Based on our review of your application under Indiana laws and regulations, we hereby issue a modification to Land Application Permit No. IN LA 000260 authorizing a hybrid biosolids land application program under the aforementioned regulation. Modifications to this permit are identified in bold and italicized print.

PER 327 IAC 6.1-4-17(d), A COPY OF THIS PERMIT MUST BE KEPT AT THE WASTEWATER TREATMENT PLANT OR GENERATING FACILITY WHERE THE BIOSOLIDS ARE GENERATED.

The issuance of this permit does not convey any property rights, either real or personal, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights or infringement of Federal, State, or local laws. It is the responsibility of the permittee to comply with any valid local laws regulating land application that may contain requirements more stringent than those imposed by this permit.

The Indiana Department of Environmental Management may modify, suspend, or revoke this permit for cause including, but not limited to 1) violation of any terms or conditions of this permit, 2) obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, 3) a change in any condition which requires either a temporary or permanent reduction or termination of the authorized land application, or 4) a change in standards pursuant to Section 405(d) of the Clean Water Act, if the standards when promulgated contain different conditions, are otherwise more stringent, or control pollutants not addressed by this permit.

This permit is nontransferable to any person except after notice to the Commissioner pursuant to 327 IAC 6.1-3-5. The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

The permittee shall allow the Commissioner of the Indiana Department of Environmental Management or an authorized representative, upon the presentation of credentials, to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit, and at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring equipment or monitoring method required in this permit, and to sample any discharge of pollutants.

#### **EFFECTIVE / EXPIRATION / RENEWAL DUE DATES**

Expiration Date: September 30, 2015

Permit Renewal Application Due Date: April 3, 2015

This permit modification becomes effective upon issuance unless a person aggrieved or adversely affected by the permit files an appeal accompanied by a request to stay the effective date.

During the period beginning with the issuance of this permit modification and extending until the expiration date, the permittee is authorized to conduct a land application program for the disposal of biosolids generated by the permittee. In order to receive authorization to land apply biosolids beyond the date of expiration, the permittee must submit a complete renewal application no later than the renewal due date indicated. Failure to do so will allow the permit to expire, and if land application continues, it will be an enforceable offense.

#### **LAND APPLICATION PROGRAM SUMMARY**

Material approved for land application:	Biosolids
Supervising Certified Operator or approved equivalent:	William Goodrich
<i>Approved methods of land application:</i>	<i>Injection, incorporation within 6 hours of application, or surface application</i>
Counties in which nonsite-specific land application is approved:	Vigo, Clay, Parke Sullivan, Vermillion

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Approved Site-Specific Land Application Sites:

SITE ID	OWNER	ACRES	COUNTY	RANGE	TOWNSHIP	SECTION	POLITICAL TOWNSHIP
DVC-601	PRINCETON MINING CO., INC.	101.7	VIGO	09W	12N	07 & 18	SUGAR CREEK
FIT-101	FITZPATRICK, THOMAS	58.0	VIGO	10W	11N	04	SUGAR CREEK
FIT-102	FITZPATRICK, THOMAS	51.6	VIGO	10W	11N	04	SUGAR CREEK
FIT-201	FITZPATRICK, THOMAS	91.6	VIGO	10W	11N	03	SUGAR CREEK
FIT-202	FITZPATRICK, THOMAS	71.4	VIGO	10W	11N	03	SUGAR CREEK
FIT-202A	FITZPATRICK, THOMAS	25.2	VIGO	10W	11N	04	SUGAR CREEK
FIT-203	FITZPATRICK, JUDY	58.2	VIGO	10W	11N	10	SUGAR CREEK
FIT-204	FITZPATRICK, THOMAS	13.4	VIGO	10W	11N	04 & 09	SUGAR CREEK
FRY-101	LLEWELLYN, RALPH	57.8	VIGO	08W	12N	29	LOST CREEK
HAR-101	W & J HARLAN FARMS, INC.	97.8	VIGO	10W	10N	17	PRAIRIE CREEK
HAR-102	W & J HARLAN FARMS, INC.	59.6	VIGO	10W	10N	17	PRAIRIE CREEK
HAR-103	W & J HARLAN FARMS, INC.	50.8	VIGO	10W	10N	17	PRAIRIE CREEK
HAR-104	W & J HARLAN FARMS, INC.	53.5	VIGO	10W	11N	21	PRAIRIETON
HAR-105	W & J HARLAN FARMS, INC.	57.9	VIGO	10W	11N	22	PRAIRIETON
HAR-106	W & J HARLAN FARMS, INC.	152.9	VIGO	10W	10N	18	PRAIRIE CREEK
HAR-107	W & J HARLAN FARMS, INC.	73.4	VIGO	11W	10N	11 & 12	PRAIRIE CREEK
NEE-110	W & J HARLAN FARMS, INC & F L WILSON, INC.	155.0	VIGO	11W	10N	24	PRAIRIE CREEK
PRI-301	PRINCETON MINING CO., INC.	106.5	VIGO	08W	12N	29	LOST CREEK
PRI-302	PRINCETON MINING CO., INC.	62.0	VIGO	09W	11N	16	HONEY CREEK
PRI-304	PRINCETON MINING CO., INC.	76.7	VIGO	09W	11N	10	HONEY CREEK
SMI-501	PRINCETON MINING CO., INC.	83.8	VIGO	09W	11N	15	HONEY CREEK

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### PROHIBITIONS, LIMITS, AND RESTRICTIONS

The permittee is required to comply with all conditions set forth in 327 IAC 6.1 and the following prohibitions, limits, and restrictions:

#### **SETBACKS:**

Land application of biosolids on nonsite-specific sites must be conducted in accordance with the following setbacks:

	<i>SURFACE APPLICATION</i>	<i>SUBSURFACE INJECTION</i>	<i>INCORPORATION</i>
<i>SURFACE WATERS OR THE SURFACE CONDUIT TO A SUBSURFACE FEATURE</i>	<i>300 feet</i>	<i>33 feet</i>	<i>33 feet if incorporated by end of day, otherwise 300 feet</i>
<i>RESIDENCE (unless waived in writing)</i>	<i>660 feet</i>	<i>660 feet</i>	<i>660 feet</i>
<i>ANY WELL</i>	<i>50 feet</i>	<i>50 feet</i>	<i>50 feet</i>
<i>POTABLE WELL</i>	<i>200 feet</i>	<i>200 feet</i>	<i>200 feet</i>
<i>PUBLIC BUILDING OR PUBLIC OR NONPUBLIC SCHOOL</i>	<i>660 feet</i>	<i>660 feet</i>	<i>660 feet</i>

Land application of biosolids on site-specific sites must be conducted in accordance with the following setbacks:

	<i>SURFACE APPLICATION</i>	<i>SUBSURFACE INJECTION</i>	<i>INCORPORATION</i>
<i>SURFACE WATERS OR THE SURFACE CONDUIT TO A SUBSURFACE FEATURE</i>	<i>300 feet</i>	<i>33 feet</i>	<i>33 feet if incorporated by end of day, otherwise 300 feet</i>
<i>RESIDENCE (unless waived in writing)</i>	<i>300 feet</i>	<i>Up to property line</i>	<i>300 feet</i>
<i>ANY WELL</i>	<i>50 feet</i>	<i>50 feet</i>	<i>50 feet</i>
<i>POTABLE WELL</i>	<i>200 feet</i>	<i>200 feet</i>	<i>200 feet</i>
<i>PUBLIC BUILDING OR PUBLIC OR NONPUBLIC SCHOOL</i>	<i>50 feet from property line</i>	<i>50 feet from property line</i>	<i>50 feet from property line</i>

#### **SLOPE RESTRICTIONS:**

Land application of biosolids must be conducted in accordance with the following maximum slope restrictions:

	<i>SURFACE APPLICATION</i>	<i>INJECTION</i>	<i>INCORPORATION BY END OF DAY</i>
<i>LIQUID</i>	<i>6%</i>	<i>18%</i>	<i>6%</i>
<i>DEWATERED</i>	<i>12%</i>	<i>NA</i>	<i>18%</i>

#### **BEDROCK RESTRICTION:**

Biosolids must not be applied to land unless there is a minimum depth of 20 inches of soil overlying bedrock.

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### SOIL pH:

The soil pH value must be obtained by sampling the soil to the depth of cultivation or depth of biosolids placement, whichever is greater, and analyzing by the electrometric method. The sample must be collected as 1 representative composite sample per every 25 acres or a fraction thereof within the application site. Soil analyses are valid only if they were conducted no more than 2 years prior to the date of land application.

The soil pH must be 5.5 standard units or greater at the time biosolids are applied.

### CROP RESTRICTIONS:

Food crops, feed crops, and fiber crops, whose edible parts do not touch the surface of the soil, must not be harvested until 30 days after biosolids application. Such crops include corn, hay, small grains and soybeans.

Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the ground must not be harvested until 14 months after application of biosolids. Such crops include melons, tomatoes, cabbage, lettuce, cucumbers and strawberries.

*Food crops with harvested parts below the land surface where biosolids remain on the land surface for four months or longer prior to incorporation into the soil must not be harvested until 20 months after biosolids application. Such crops include potatoes, peanuts, onions, turnips and beets.*

Food crops with harvested parts below the land surface where biosolids remain on the land surface for less than 4 months prior to incorporation must not be harvested until 38 months after biosolids application. Such crops include potatoes, peanuts, onions, turnips and beets.

Turf grown on land where biosolids are applied must not be harvested until 1 year after application of the biosolids if the harvested turf is placed on land with a high potential for public exposure.

### PASTURE AND GRAZING RESTRICTIONS:

Animals must not be grazed on land until 30 days after application of biosolids to the land.

A biosolid with a concentration of molybdenum greater than 40 milligrams per kilogram is prohibited from being applied to pasture.

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#### APPLICATION SITE ACCESS RESTRICTION:

Access to land with a high potential for public exposure is to be restricted for 1 year after biosolids application.

Access to land with a low potential for public exposure is to be restricted for 30 days after biosolids application.

#### FLOOD PLAIN:

*Biosolids may only be applied in a flood plain if the biosolids are injected or incorporated into the soil by the end of the day of placement in the flood plain and the biosolids do not enter surface waters or ground water.*

#### FROZEN GROUND:

*Surface application on frozen or snow-covered ground is approved when conducted in accordance with the following management plan:*

*Each year prior to use, boundaries of all sites planned for use will be located and visually marked in order to assure that only the permitted areas are used for land application.*

*Biosolids will not be applied within 300 feet of any surface waters or the surface conduit to a subsurface feature, only if this 300-foot area contains sufficient contour tilling, heavily sodded grass, or heavy fodder to retard runoff and erosion from the site. Otherwise, a 600-foot setback will be implemented.*

*Land application of biosolids is prohibited on any portion of the site with a slope in excess of 2 percent.*

*For site-specific sites listed in this permit, biosolids will not be applied within 300 feet of any neighboring residence, only if this 300-foot area contains sufficient contour tilling, heavily sodded grass, or heavy fodder to retard runoff and erosion from the site. Otherwise, a 600-foot setback will be implemented.*

*For nonsite-specific sites, biosolids will not be applied within 660 feet of any neighboring residence, unless the homeowner has signed a waiver in which case the setback may be reduced to site-specific limits.*

*Biosolids will not be applied within 50 feet of the boundary of a site unless a site borders another permitted site. This 50-foot boundary shall consist of sufficient contour tilling, heavily sodded grass, or heavy fodder to retard runoff and erosion from the site. For nonsite-specific sites, the boundary shall remain the same from adjoining fields not currently permitted.*

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*Supervision at frozen ground land application sites will be increased. This will include additional field checks to ensure control measures when there are periods of significant rainfall events, extended periods of freezing and thawing, or when there are other environmental conditions that would result or are likely to result in runoff leaving the application site. Although not foreseen, any uncontrolled runoff from frozen ground application sites will result in corrective measures that could include: earthen dikes, sand bagging, hay bale dams, portable pumping units, and extra personnel for on-call situations to respond to emergencies.*

*Consideration of weather reports will be expanded to include weekly forecast trends of precipitation and soil temperature monitoring, so that when unfavorable weather and soil conditions are anticipated, hauling and application will be curtailed.*

#### GENERAL MANAGEMENT PRACTICES:

Biosolids must not be applied to the land if the biosolids are likely to adversely affect a threatened or endangered species or its designated critical habitat or in violation of endangered species regulations at IC 14-22-34.

Biosolids must not be applied to the land in violation of historic preservation requirements under IC 14-20-1.

Application of biosolids is prohibited if the moisture holding capacity of the soil is exceeded.

#### STAGING:

Staging of dewatered biosolids on land application sites for less than 24 hours is permitted although the permittee must conduct the land application operation in such a manner that minimizes the staging of biosolids. The amount of biosolids staged must not exceed the amount that can be applied to that land application site within 24 hours of placement. Staging of biosolids must be conducted in accordance with the following setbacks:

SURFACE WATERS OR THE SURFACE CONDUIT TO A SUBSURFACE FEATURE	300 feet
RESIDENCE (unless waived in writing)	660 feet
POTABLE WELL/DRINKING WATER SPRING	200 feet

Staging of biosolids must not take place on any area with a slope greater than 2 percent, or on any area located in the flood plain unless applied by the end of the same day it is staged.

In the event that staging of biosolids for more than 24 hours occurs due to unforeseen circumstances, such as an extreme weather event or equipment failure, the biosolids must be completely covered by a tarp or plastic sheet. Alternately, if not covered, the biosolids

must be applied to the land application site or returned to an approved storage site within 48 hours of placement at the staging location. Following such event, the permittee must submit written notification within 1 week to the commissioner. This notification must include the date the biosolids was placed at the land application site, the reason the biosolids could not be applied within 24 hours of staging, and the date the biosolids was applied to the land application site or returned to an approved storage site.

#### **STOCKPILING:**

Stockpiling of biosolids at any land application site is prohibited.

#### **STORAGE AND STORAGE STRUCTURES:**

The permittee must maintain a minimum of 90 days of effective storage capacity for biosolids.

Except for earthen lagoons, any storage structures, such as pits or tanks, which are subject to volume fluctuations due to precipitation events, must have a minimum of 1 foot of freeboard at all times.

Storage structures for the storage of biosolids must be constructed and maintained in accordance with 327 IAC 6.1-8 unless approved under a wastewater treatment plant permit issued under 327 IAC 3, a solid waste processing facility permit issued under 329 IAC 11, a composting facility registered under 329 IAC 14 or a permitted land disposal facility issued under 329 IAC 10.

A fixed volume of biosolids for land application may be stored in any storage structure for no more than 2 years.

#### **POLLUTANT CEILING LIMIT:**

Based on analytical results of samples collected, analyzed and reported prior to land application (refer to Monitoring and Analysis section for sampling frequency), pollutant concentrations in the biosolids to be applied must not exceed the following concentrations:

POLLUTANT	mg/kg DRY WEIGHT BASIS
ARSENIC	41
CADMIUM	39
COPPER	1,500
LEAD	300
MERCURY	17
MOLYBDENUM	75
NICKEL	420
SELENIUM	100
ZINC	2,800



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If any pollutant, excluding copper, is found to exceed the specified limit, land application of the biosolids is prohibited and the permittee must do one of the following:

Within 90 days of first receiving knowledge of the exceeded limit, the permittee must modify this permit by applying for a site-specific permit, or

Within 45 days of first receiving knowledge of the exceeded limit, the permittee must take at least 4 representative samples of the biosolids to be analyzed for the pollutant concentration(s) that has been exceeded. For a fixed volume of biosolids that is not receiving additional biosolids, the 4 samples must be taken within a 30-day period. For biosolids that are receiving additional biosolids the 4 samples must be taken within a 30-day period at least 2 days apart. If the average of the analytical results for all 4 samples is less than the applicable limit, the biosolids may then be land applied. If the average of the analytical results for all 4 samples exceeds the applicable limit, the permittee may land apply the biosolids to a site-specific application site only if the average does not exceed the applicable ceiling limit found in Table 1 at 327 IAC 6.1-4-9(a). In the latter case, the permittee must apply to modify this permit by applying for a site-specific permit within 60 days of receiving the results of the analyses.

If copper is found to exceed the specified limit, the permittee must immediately start following the site-specific requirements of this permit and must apply to modify this permit by applying for a site-specific permit.

#### **PCB LIMIT:**

Land application of biosolids containing concentrations of polychlorinated biphenyls (PCBs) at 2 mg/kg or greater on a dry weight basis is prohibited.

#### **CROP APPLICATION RATES:**

Crop application rates based on plant available nitrogen (PAN) loadings, using the formulas below, must not exceed the following:

CROP	POUNDS OF PAN PER ACRE
CORN	200
SOYBEANS	100
HAY / PASTURE	100
CEREAL GRAIN	100
SET ASIDE / IDLE	50

Additionally, the nitrogen application rate for the proposed crop to be grown on the land application site must be adjusted to account for application of fertilizers, manure, and the presence of residual available nitrogen in the soil from previous applications of a biosolid, industrial waste product, or pollutant-bearing water.

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NITROGEN CALCULATION FORMULAS	
<b>GENERAL CALCULATIONS</b>	
%Total Nitrogen = % Total Kjeldahl Nitrogen + %Nitrate Nitrogen	
%Organic Nitrogen = %Total Nitrogen - (%Ammonia Nitrogen + %Nitrate Nitrogen)	
<b>PAN CALCULATION FOR ANAEROBIC BIOSOLIDS</b>	<b>PAN CALCULATION FOR AEROBIC BIOSOLIDS</b>
Pounds Organic Nitrogen per dry ton = % Organic Nitrogen X 4	Pounds Organic Nitrogen per dry ton = % Organic Nitrogen X 6
Pounds of Ammonia Nitrogen per dry ton = % Ammonia Nitrogen X 20	Pounds of Ammonia Nitrogen per dry ton = % Ammonia Nitrogen X 20
Pounds of Nitrate Nitrogen per dry ton = % Nitrate Nitrogen X 20	Pounds of Nitrate Nitrogen per dry ton = % Nitrate Nitrogen X 20
Pounds PAN per dry ton = Pounds of Organic Nitrogen per dry ton + Pounds of Ammonia Nitrogen per dry ton + Pounds of Nitrate Nitrogen per dry ton	Pounds PAN per dry ton = Pounds of Organic Nitrogen per dry ton + Pounds of Ammonia Nitrogen per dry ton + Pounds of Nitrate Nitrogen per dry ton
<b>RESIDUAL NITROGEN CALCULATION FOR ANAEROBIC BIOSOLIDS</b>	<b>RESIDUAL NITROGEN CALCULATION FOR AEROBIC BIOSOLIDS</b>
Pounds of Residual Nitrogen available 1 year after application = % Organic Nitrogen X 2 X dry tons applied per acre	Pounds of Residual Nitrogen available 1 year after application = % Organic Nitrogen X 3 X dry tons applied per acre
Pounds of Residual Nitrogen available 2 years after application = % Organic Nitrogen X dry tons applied per acre	Pounds of Residual Nitrogen available 2 years after application = % Organic Nitrogen X 1.6 X dry tons applied per acre
Pounds of Residual Nitrogen available 3 years after application = % Organic Nitrogen X 0.5 X dry tons applied per acre	Pounds of Residual Nitrogen available 3 years after application = % Organic Nitrogen X 0.8 X dry tons applied per acre

#### ANNUAL LOADING RATES:

Annual loading rates of biosolids must not result in any of the following pollutant loading rates being exceeded.

POLLUTANT	ANNUAL POLLUTANT LOADING RATE (pounds per acre per 365-day period)
ARSENIC	1.8
CADMIUM	0.45
COPPER	66.0
LEAD	13.4
MERCURY	0.7
MOLYBDENUM	Not applicable
NICKEL	18.7
SELENIUM	4.4
ZINC	124.9

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The following formula for annual loading rate calculation is to be used to calculate the amount of biosolids to be applied per acre per 365-day period:

$$ALR = \frac{APLR}{C \times 0.002}$$

Where

ALR =	Annual loading rate in dry tons per acre per 365-day period (dry tons of biosolids per acre per year).
APLR =	Annual pollutant loading rate in pounds per acre per 365-day period from table (pounds per acre per year).
C =	Pollutant concentration in mg/kg (mg of pollutant per kg of biosolids dry weight)

#### **PATHOGEN REDUCTION:**

The following pathogen reduction method must be met and documented prior to land application of biosolids:

Prior to land application, 7 representative samples of the biosolids must be collected and analyzed. These 7 samples must be collected over a period of not more than 14 days. The geometric mean of the density of fecal coliform in the samples must be less than either 2,000,000 most probable number (MPN) per gram of total solids or 2,000,000 colony-forming units (CFU) per gram of total solids.

Other pathogen reduction methods as listed at 327 IAC 6.1-4-13 may be used if the applicable requirements are met and documented prior to land application of biosolids.

#### **VECTOR ATTRACTION REDUCTION:**

*One of the following vector attraction reduction methods must be met and documented prior to land application of biosolids when the biosolids are surface applied:*

*For anaerobically digested biosolid, vector attraction reduction is to be demonstrated by digesting a portion of the previously digested biosolids anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 degrees Celsius and 37 degrees Celsius. When, at the end of the 40 days, the volatile solids in the biosolids at the beginning of that period is reduced by less than 17%, vector attraction reduction is achieved, or*

*For aerobically digested biosolids, vector attraction reduction is demonstrated by digesting a portion of the previously digested biosolids that has a percent total solids of 2% or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. When, at the end of the 30 days, the volatile solids in the biosolids at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved, or*

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One of the following vector attraction reduction methods must be met and documented at the time of land application of biosolids:

Biosolids must be injected below the surface of the land such that no significant amount of biosolids are present on the land surface within 1 hour after the biosolids are injected, or

Biosolids applied to the land surface must be incorporated into the soil within 6 hours after application to or placement on the land.

***PRIOR TO INITIAL SURFACE APPLICATION OF AEROBICALLY DIGESTED BIOSOLIDS:***

*Documentation must be submitted that demonstrates compliance with the 30-day laboratory bench-scale test for aerobic digestion.*

**MONITORING AND ANALYSIS:**

Monitoring and analysis of the biosolids must be conducted according to the following:

**EACH DAY IN WHICH LAND APPLICATION OCCURS:**

Biosolids that are to be applied to the land must be monitored each day of land application for percent total solids.

**EACH 30-DAY PERIOD IN WHICH LAND APPLICATION OCCURS:**

For each 30-day period that biosolids are applied, a composite sample of the biosolids must be collected and analyzed for percent total solids, total nitrogen, ammonia nitrogen, nitrate nitrogen, phosphorus and potassium. The resulting analyses must be reported on both a wet weight and dry weight basis.

Composite samples must represent the biosolids applied. An acceptable procedure for collecting this composite sample includes the collection and proper preservation of a small sample from each load, or from each day of application. All of these samples are then combined at the end of the application period and the sample to be sent to the laboratory is taken from this blend.

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***EACH 60-DAY PERIOD IN WHICH LAND APPLICATION OCCURS:***

Prior to land application, a representative sample of the biosolids that are to be applied to the land must be collected and analyzed for the following:

CATEGORY	SPECIFIC PARAMETERS
	Percent Total Solids
TOTAL HEAVY METALS:	Arsenic
	Cadmium
	Copper
	Lead
	Mercury
	Molybdenum
	Nickel
	Selenium
	Zinc
PATHOGEN REDUCTION:	Fecal coliform (7 samples)
VECTOR ATTRACTION REDUCTION:	<i>Bench scale volatile solids data for anaerobically digested biosolids (when applicable)</i>
	<i>Bench scale volatile solids data for aerobically digested biosolids (when applicable)</i>

*The frequency of these analyses is based on an estimated annual biosolids production of 2,500 dry tons. If your annual biosolids production rate reaches or exceeds 16,530 dry tons per year, you are required to increase your monitoring frequency for these parameters to one sample for every 30-day period in which land application occurs.*

***EACH 365-DAY PERIOD IN WHICH LAND APPLICATION OCCURS:***

For each 365-day period that biosolids are applied, a composite sample of the biosolids must be collected and analyzed for PCBs and percent total solids. The resulting analyses must be reported on both a wet weight and dry weight basis.

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### MAXIMUM DETECTION LIMITS:

The following maximum detection limits must not be exceeded when analyzing a biosolid that has a total solids of 1 percent or greater:

POLLUTANT	MAXIMUM DETECTION LIMIT mg/kg DRY WEIGHT BASIS
ARSENIC	2
CADMIUM	10
COPPER	Not applicable
LEAD	10
MERCURY	.2
MOLYBDENUM	10
NICKEL	10
SELENIUM	2
ZINC	Not applicable

### RECORDS AND RECORD KEEPING:

The following records must be generated by the person who applies the biosolids for each day on which land application occurs:

- The location, indicated on a site map, of each site that biosolid is applied
- The number of acres in each site to which biosolid is applied
- The date biosolid is applied to each site
- The amount of biosolid in dry tons applied to each site
- A description of how the site restrictions and the management practices are met for each site on which biosolid is applied.
- A certification statement indicating the vector attraction reduction requirement is met if vector attraction reduction is met by injection or incorporation of the biosolids
- A description of how the vector attraction reduction requirements are met if vector attraction reduction is met by injection or incorporation of the biosolids

The following records must be generated by the permittee and retained for a minimum of 5 years:

- The results of analyses required by this permit
- Pathogen reduction certification statements
- A description of how the Class B pathogen reduction requirements are met
- If vector attraction reduction is not met by injection or incorporation of the biosolids, description of how the vector attraction reduction requirements are met
- The information above provided by the person who applies the biosolid

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The following records must be generated by the permittee and retained indefinitely:

- The cumulative amount of each of the following pollutants in pounds per acre that have been applied to each application site by the permittee:

Arsenic	Copper	Mercury	Selenium
Cadmium	Lead	Nickel	Zinc

- A description of how previous cumulative amounts of each pollutant listed above has been determined.

## REPORTS AND REPORTING

Monthly reports must be generated and submitted to the Solid Waste Permits Section within 30 days of the last day of each calendar month for the term of the permit and must be submitted on forms and in a format prescribed by the commissioner. All land application reports must be submitted to the following address:

Indiana Department of Environmental Management  
Office of Land Quality  
Solid Waste Permits Section  
MC 65-45 IGCN 1101  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251

Monthly reports must include:

For each month during which no land application occurs, the permittee must submit one Land Application Monthly Report form indicating no biosolids disposal or summarizing any other disposal methods utilized.

For each month during which land application occurs:

- Land Application Monthly Report form summarizing all biosolids disposal that month
- Land Application Site Activity Report for each application site used
- Land Application Site-Use Map for each application site used
- Copy of each analysis of the biosolids used to prepare the report

For each application site not listed in this permit and used for the first time after the effective date of this permit:

- Application Site Information Form
- Application Site Land-Use Agreement

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- USDA NRCS Soil Survey map detailing the location and boundaries of the application site
- Copy of each soil analysis

The permittee must notify the commissioner of the cumulative application on a land application site of any metal in a quantity equal to or greater than 90% of the following:

POLLUTANT	CUMULATIVE POLLUTANT LOADING RATE (pounds per acre)
ARSENIC	36
CADMIUM	34
COPPER	1338
LEAD	267
MERCURY	15
MOLYBDENUM	Not applicable
NICKEL	374
SELENIUM	89
ZINC	2499

#### ALTERNATIVE USES

Up to one dry ton of dewatered biosolids may be applied to the permittee's treatment works grounds during any 12-month period as long as the biosolids are not used on land with a high potential for public exposure and if in compliance with this permit.

#### APPEAL PROCEDURES

If you wish to challenge this decision, IC 13-15-6-1 and IC 4-21.5-3-7 require that you file a Petition for Administrative Review. If you seek to have the effectiveness of the permit stayed during the Administrative Review, you must also file a Petition for Stay. The Petition(s) must be submitted to the Office of Environmental Adjudication at the following address within eighteen days of the date of this notice:

Office of Environmental Adjudication  
Indiana Government Center North  
100 North Senate Avenue, Room 1049  
Indianapolis, Indiana 46204

The Petition(s) must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision, or otherwise entitled to review by law. Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition. Additionally, IC 13-15-6-2 requires that your Petition include:

1. The name and address of the person making the request.
2. The interest of the person making the request.



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3. Identification of any persons represented by the person making the request.
4. The reasons, with particularity, for the request.
5. The issues, with particularity, for the request.
6. Identification of the permit terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing permits of the type granted or denied by the Commissioner's action.

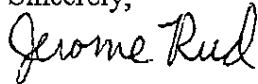
Pursuant to IC 4-21.5-3-1(f), any document serving as a petition for review or review and stay must be filed with the Office of Environmental Adjudication. Filing of such a document is complete on the earliest of the following dates:

1. The date on which the petition is delivered to the Office of Environmental Adjudication (OEA).
2. The date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or
3. The date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

Pursuant to IC 4-21.5-3-3, the Office of Environmental Adjudication will provide you with notice of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this decision if you submit a written request to the Office of Environmental Adjudication at the above address. If you do not provide a written request to the Office of Environmental Adjudication, you will no longer be notified of any proceedings pertaining to this decision.

Should you have any questions concerning the technical criteria utilized in issuing this permit, please feel free to contact Brenda Stephanoff at (317) 233-0472.

Sincerely,



Jerome Rud, Chief  
Solid Waste Permits Section  
Office of Land Quality

JLR:JLH:bes

cc: William Goodrich, Certified Operator  
Ryan Zeck, Merrell Brothers, Inc.  
County Health Departments  
County Plan Commissions  
Solid Waste Management Districts

STATE OF INDIANA  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

PUBLIC NOTICE NO. 12-07-B-PI

DATE APPEALS DUE: January 3, 2008

**LAND APPLICATION PERMIT ISSUED - MODIFICATION**

CITY OF TERRE HAUTE, 17 Harding Avenue, Terre Haute, Indiana, Permit No. IN LA 000260. This permit modification allows the permittee to surface apply wastewater treatment biosolids on frozen and snow covered ground. The U.S. Environmental Protection Agency (EPA) and the Indiana Department of Environmental Management (IDEM) recognize and encourages the beneficial use of waste products through such practices as land application. The permit controls quality of the waste products to be applied as well as the yearly and cumulative amount of waste products which can be land applied to a site. For more specific information concerning the permit, contact Ryan Zeck, Merrell Bros., Inc., at (574) 699-7782. This permit is written in accordance with Indiana Administrative Code 327 IAC 6.1.

**Appeal Procedures**

If you wish to challenge this decision, IC 13-15-6-1 and IC 4-21.5-3-7 require that you file a Petition for Administrative Review. If you seek to have the effectiveness of the permit stayed during the Administrative Review, you must also file a Petition for Stay. The Petition(s) must be submitted to the Office of Environmental Adjudication at the following address by the date indicated above:

Office of Environmental Adjudication  
Indiana Government Center North  
100 North Senate Avenue, Room 1049  
Indianapolis, Indiana 46204

The Petition(s) must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision, or otherwise entitled to review by law. Identifying the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, or date of this notice will expedite review of the petition. Additionally, IC 13-15-6-2 requires that your Petition include:

1. The name and address of the person making the request.
2. The interest of the person making the request.
3. Identification of any persons represented by the person making the request.

4. The reasons, with particularity, for the request.
5. The issues, with particularity, for the request.
6. Identification of the permit terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing permits of the type granted or denied by the Commissioner's action.

Pursuant to IC 4-21.5-3-1(f), any document serving as a petition for review or review and stay must be filed with the Office of Environmental Adjudication. Filing of such a document is complete on the earliest of the following dates:

1. The date on which the petition is delivered to the Office of Environmental Adjudication (OEA).
2. The date of the postmark on the envelope containing the petition, if the petition is mailed by United States mail; or
3. The date on which the petition is deposited with a private carrier, as shown by a receipt issued by the carrier, if the petition is sent by private carrier.

Pursuant to IC 4-21.5-3-3, the Office of Environmental Adjudication will provide you with notice of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this decision if you submit a written request to the Office of Environmental Adjudication at the above address. If you do not provide a written request to the Office of Environmental Adjudication, you will no longer be notified of any proceedings pertaining to this decision.

Copies of the issued permit, the permit application, and other related documents are on file and may be inspected at the Indiana Department of Environmental Management, Room 1154, Indiana Government Center North, 100 North Senate, Indianapolis, Indiana, at any time between 9:00 a.m., and 4:00 p.m., Monday through Friday. All these documents may be copied at a cost of 10 cents per page. A copy of the final permit is also on file with the local health department and is available for public review. Please bring the foregoing to the attention of persons whom you know would be interested in this matter.